

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NE-10-AD; Amendment 39-13286; AD 2003-17-11]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Dart 528, 529, 529D, 531, 532, 535, 542, and 552 Series Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Rolls-Royce Deutschland Ltd & Co KG (RRD) (formerly Rolls-Royce plc) Dart 528-7E, 529-7H, -7E, -8E, -8H, -8X, -8Y, -8Z, 529D-7E, -7H, -8E, -8H, -8X, -8Y, -8Z, 531, 532-2L, -7, -7N, -7P, -7L, -7R, 535-2, -7R, 542-4, -4K, -10, -10J, -10K, 552-2, 552-7, and -7R turboprop engines. This AD requires removal of any Sermetel coating (Omat 7/46) from certain high pressure (HP) turbine discs and intermediate pressure (IP) turbine discs, and inspection of discs after coating removal. This AD is prompted by reports of Sermetel coating (Omat 7/46) applied to certain turbine discs which, if allowed to remain on the discs would react adversely with the disc dry film lubricant, and could result in uncontained HP or IP turbine disc failure, resulting in possible damage to the airplane. We are issuing this AD to prevent uncontained HP or IP turbine disc failure, which could result in damage to the airplane.

DATES: This AD becomes effective September 30, 2003.

ADDRESSES: You may get the service information identified in this AD from Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, D-15827 Dahlewitz, Germany; Tel: 49-33-7086-1768; Fax: 49-33-7086-3356.

You may examine the AD docket at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7176; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR Part 39 with a proposed AD. The proposed AD applies to RRD (formerly Rolls-Royce plc) Dart 528-7E, 529-7H, -7E, -8E, -8H, -8X, -8Y, -8Z, 529D-7E, -7H, -8E, -8H, -8X, -8Y, -8Z, 531, 532-2L, -7, -7N, -7P, -7L, -7R, 535-2, -7R, 542 -4, -4K, -10, -10J, -10K, 552-2, 552-7, and -7R turboprop engines. We published the proposed AD in the Federal Register on May 5, 2003 (68 FR 23620). That action proposed to require removal of any Sermetel coating (Omat 7/46) from certain HP turbine discs and IP turbine discs, and inspection of discs after coating removal.

Comments

We provided the public the opportunity to participate in the development of this AD. We received no comments on the proposal or on the determination of the cost to the public.

Conclusion

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Changes to 14 CFR Part 39—Effect on the AD

On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. That regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. The material previously was included in each individual AD. Since the material is included in 14 CFR part 39, we will not include it in future AD actions.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 2003-NE-10-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-17-11 Rolls-Royce Deutschland Ltd & Co KG: Amendment 39-13286. Docket No. 2003-NE-10-AD.

Effective Date

(a) This AD becomes effective September 30, 2003.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) (formerly Rolls-Royce plc) Dart 528-7E, 529-7H, -7E, -8E, -8H, -8X, -8Y, -8Z, 529D-7E, -7H, -8E, -8H, -8X, -8Y, -8Z, 531, 532-2L, -7, -7N, -7P, -7L, -7R, 535-2, -7R, 542-4, -4K, -10, -10J, -10K, 552-2, 552-7, and -7R turboprop engines with a high pressure (HP) turbine disc or intermediate pressure (IP) turbine disc that has a serial number (SN) listed in Table 1 of this AD installed. These engines are installed on, but not limited to, BAE Systems (Operations) Limited, Model HS 748 Series 2A and 2B airplanes, Fokker Aircraft B.V., F.27 Friendship Mark 200, 400, 500, and 600 airplanes, Gulfstream Aerospace Corporation Model G-159 "Gulfstream I" airplanes, Maryland Air Industries, Inc. F-7F, F-27A, F-27G, F-27J, F-27M, FH-227B, FH-227C, FH-227D, and FH-227E airplanes, and Mitsubishi Heavy Industries, Ltd Model YS-11, YS-11A-200, YS-11A-300, YS-11A-500, and YS-11A-600 airplanes. Table 1 follows:

TABLE 1.—AFFECTED TURBINE DISCS

Turbine disc serial number	Turbine disc stage	Date when coating was applied	Turbine disc cycles-since-new when coating was applied
DETN128	HP	31. Mar 01	4356
DETN155	HP	22. Jun 99	0
DETN3541	HP	17. Apr 01	2850
DETN3542	HP	16. Jan 01	6053
LA759	HP	27. Oct 00	5858
LP219	HP	23. Nov 99	6688
LW376	HP	21. Jul 99	3302
LX484	HP	22. Feb 00	4632
LZ299	HP	23. Dec 99	5839
LZ404	HP	13. Jul 01	630

LZ555	HP	30. Aug 00	2158
LZ564	HP	15. Mar 01	4204
SG612	HP	20. Apr 00	5735
SH195	HP	16. Dec 99	5349
DETN25	IP	30. Aug 00	2158
DETN238	IP	31. Mar 01	4356
DETN240	IP	18. Apr 01	0
DETN944	IP	04. Mar 00	2200
DETN2666	IP	17. Apr 01	2850
DETN5538	IP	16. Jul 01	630
DETN6400	IP	14. Apr 99	0
LA407	IP	22. Jun 00	5736
LA858	IP	27. Oct 00	5858
LB99	IP	13. Aug 99	9093
LE284	IP	24. Dec 99	5679
LN87	IP	10. May 99	5829
LP519	IP	23. Nov 99	6688
LW517	IP	22. Dec 99	5865
LX214	IP	09. Dec 00	6498
LX379	IP	22. Feb 00	4632
LZ248	IP	23. Dec 99	5839
LZ385	IP	17. Oct 01	9072
LZ603	IP	22. Jun 99	0
SG554	IP	20. Apr 00	5735
SH863	IP	16. Dec 99	5349

Unsafe Condition

(d) This AD is prompted by reports of Sermetel coating (Omat 7/46) applied to certain turbine discs which, if allowed to remain on the discs would react adversely with the disc dry film lubricant, causing uncontained HP or IP turbine disc failure, which could result in damage to the airplane. We are issuing this AD to prevent HP or IP turbine disc failure, which could result in damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Determining if Action Is Required

(f) Within 60 days after the effective date of this AD, determine the SN of the HP turbine disc and the IP turbine disc. If none of the HP and IP turbine discs with SNs listed in Table 1 are installed in the engine, no further action is required.

(g) If one or more of the discs with SNs listed in Table 1 of this AD are installed in the engine, do the following:

(1) If the engine has had a full overhaul of the turbine after the shop visit at which the Sermetel coating (Omat 7/46) was applied, no further action is required.

(2) If only the HP turbine disc is listed in Table 1, and the engine has RRD Service Bulletin No. Da72-533, Revision 3, dated October 2001, incorporated, no further action is required.

Removal of Sermetel Coating and Disc Inspection

(3) Before accumulating 10,000 flight cycles since the coating was applied, completely remove Sermetel coating (Omat 7/46) from HP turbine discs and LP turbine discs. Information on coating removal can be found in RRD Overhaul Processes Manual, Overhaul Process 114.

(4) Visually inspect HP turbine discs and LP turbine discs, and return to service discs that pass inspection. Information on disc pass or fail inspection criteria can be found in the RRD Engine Overhaul Manual, Chapter 72-6-1.

Alternative Methods of Compliance

(h) Alternative methods of compliance must be requested in accordance with 14 CFR part 39.19, and must be approved by the Manager, Engine Certification Office, FAA.

Material Incorporated by Reference

(i) None.

Related Information

(j) The subject of this AD is addressed in LBA airworthiness directive LTA 2003-015, dated February 6, 2003.

Issued in Burlington, Massachusetts, on August 19, 2003.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 03-21741 Filed 8-25-03; 8:45 am]

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